

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION**

ELNORA CARTHAN, et al.,  
Plaintiffs,

v.

RICK SNYDER, et al.,  
Defendants.

Case No. 5:16-cv-10444-JEL-MKM  
Hon. Judith E. Levy

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**DEFENDANTS VEOLIA NORTH AMERICA, LLC, VEOLIA NORTH  
AMERICA, INC., AND VEOLIA WATER NORTH AMERICA  
OPERATING SERVICES, LLC’S MOTION TO EXCLUDE THE  
OPINIONS AND RELATED TESTIMONY OF DR. CLIFFORD P. WEISEL**

Pursuant to Federal Rules of Evidence 403 and 702, Defendants Veolia North America, LLC, Veolia North America, Inc., and Veolia Water North America Operating Services, LLC (VNA) move to exclude the opinions and related testimony of Dr. Clifford P. Weisel. Dr. Weisel offers opinions that are outside his area of expertise and/or are unreliable. They are therefore inadmissible under Rule 702. Dr. Weisel also offers opinions that should be excluded under Rule 403 because their probative value to the issues that the Court has certified for class trial is substantially outweighed by the risk of unfair prejudice, confusing the jury, and wasting time.

VNA moved to exclude Dr. Weisel’s opinions when Plaintiffs offered his testimony in support of class certification. VNA Mot. to Exclude Weisel, ECF No. 1384, PageID.52498. The Court denied the motion as moot because it did not rely

on Dr. Weisel's opinions in deciding class certification, and stated that VNA could "revive [its] *Daubert* motion[] should Class Plaintiffs seek to rely on [his testimony] at a later time." Second Am. Op. & Order Granting in Part and Denying in Part Pls.' Mot. to Certify Class 143, ECF No. 1957, PageID.68009, 68151.

As Local Rule 7.1 requires, on May 18, 2023, VNA sent counsel for Class Plaintiffs an email identifying each of the points raised in this motion along with detailed explanations of the legal bases for each point, and offering to schedule a call if counsel wished to discuss the motion further. Counsel for Class Plaintiffs responded they do not concur in the motion.

Respectfully submitted,

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Dated: May 19, 2023

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**DEFENDANTS VEOLIA NORTH AMERICA, LLC, VEOLIA NORTH  
AMERICA, INC., AND VEOLIA WATER NORTH AMERICA  
OPERATING SERVICES, LLC'S BRIEF IN SUPPORT OF THEIR  
MOTION TO EXCLUDE THE OPINIONS AND RELATED TESTIMONY  
OF DR. CLIFFORD P. WEISEL**

### **STATEMENT OF THE ISSUES PRESENTED**

1. Should the Court exclude the opinions and related testimony of Dr. Clifford Weisel because he is not qualified to provide expert testimony on the opinions he offers?

**VNA answers:** “Yes.”

**Plaintiffs answer:** “No.”

2. Should the Court exclude the opinions and related testimony of Dr. Clifford Weisel because his opinions are unreliable?

**VNA answers:** “Yes.”

**Plaintiffs answer:** “No.”

3. Should the Court exclude the opinions and related testimony of Dr. Clifford Weisel because the probative value of his opinions for the issue-class trial is substantially outweighed by the dangers of unfair prejudice, confusing the jury, and wasting time?

**VNA answers:** “Yes.”

**Plaintiffs answer:** “No.”

## **CONTROLLING OR MOST APPROPRIATE AUTHORITIES**

*Berry v. City of Detroit*, 25 F.3d 1342 (6th Cir. 1994)

*Everlight Elecs. Co. v. Nichia Corp.*, No. 12-cv-11758, 2014 WL 4707053 (E.D. Mich. Sept. 22, 2014)

*Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999)

*Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244 (6th Cir. 2001)

*Newell Rubbermaid, Inc. v. Raymond Corp.*, 676 F.3d 521 (6th Cir. 2012)

Fed. R. Evid. 403

Fed. R. Evid. 702

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## **INTRODUCTION**

Clifford P. Weisel, Ph.D., is a professor emeritus of exposure science, which is the study of the effects of toxic agents on living organisms. Plaintiffs offer his testimony to show that class members were exposed to increased levels of lead from drinking unfiltered tap water as a result of the switch to Flint River water in April 2014. Dr. Weisel opines that the City of Flint's failure to use appropriate corrosion-control treatment caused a disruption to the surface of pipes and plumbing fittings and fixtures, causing the release of additional lead into the tap water in residences, schools, and other buildings in Flint between May 1, 2014 and January 5, 2016. He concludes that class members thus would have been exposed to elevated lead levels from drinking Flint water during the water crisis. Those opinions are outside Dr. Weisel's expertise in exposure science, they are unreliable, and their probative value is outweighed by the risks of unfair prejudice, confusing the jury, and wasting time.

First, Dr. Weisel's opinion that lead levels increased in Flint because of the water source switch is based on an analysis that is outside his expertise in exposure science. Dr. Weisel is not qualified to offer expert opinions about the release of lead from pipes or plumbing components into Flint's drinking water. Nor is he qualified to offer expert opinions about which buildings in Flint were susceptible to lead being released from their pipes or plumbing. He admits that he is not an expert on corrosion or water treatment. He has no experience analyzing how corrosion occurs

or how lead is released from plumbing components into drinking water. His expertise in exposure science does not qualify him to give opinions on the causes, location, or duration of elevated water lead levels in buildings in Flint.

Second, Dr. Weisel did not employ a reliable methodology to reach his conclusion that Flint residents were exposed to elevated lead levels in tap water in 2014 and 2015 if they lived in a home built before 1986. Dr. Weisel has no evidence to support his assumption that all homes built before 1986 had service lines or plumbing components that contained lead. Dr. Weisel also has no evidence to support his assumption that pre-1986 homes experienced elevated water lead levels during the relevant period. Those opinions are unreliable and inadmissible.

Third, Dr. Weisel's opinion that class members were exposed to increased lead levels from the water crisis is substantially more prejudicial than probative. Dr. Weisel claims that his opinions are relevant to the third issue certified for class trial: whether the water was capable of causing the harms claimed by Plaintiffs. But the relevance of his testimony to that issue is minimal because he never quantified the amount of increased lead exposure that class members may have experienced as a result of the water crisis, so he does not and cannot opine that class members were exposed to harmful lead levels. At the same time, his testimony is prejudicial and confusing because it may improperly suggest to the jury that class members were exposed to harmful lead levels even though he does not offer that opinion. His



testimony also would unnecessarily prolong the trial, especially because VNA would need to present testimony to challenge the flawed analysis on which he bases his opinions. Dr. Weisel's opinions thus should be excluded under Rule 403.

### **BACKGROUND**

Dr. Weisel previously produced a report in support of class certification. Plaintiffs invoked Dr. Weisel's opinions in support of their contention that all members of the minors subclass were exposed to elevated levels of lead in tap water as a result of the water crisis. Pls. Mot. for Class Certification (Class Cert. Mot.) 74, ECF No. 1207, PageID.34511. Dr. Weisel's class-certification report stated:

My opinion is that children and pregnant women who consumed unfiltered tap water over a period of at least 90 days in Flint at homes, schools or daycare establishments that meet Criteria 4, 5 and 6 in Dr. Hu's Declaration between May 1, 2014 and January 5, 2016 ingested increased concentrations of lead as a result of Flint's change in water to the Flint River.

Weisel Class Cert. Declaration 7, ECF No. 1208-136, PageID.37892.<sup>1</sup> Plaintiffs' epidemiology expert Dr. Howard Hu then relied on Dr. Weisel's opinion that Flint children who drank tap water for at least 90 days were exposed to elevated lead

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<sup>1</sup> Criteria 4, 5, and 6 set forth by Dr. Hu were: "Criterion 4: Having lived in a domicile in Flint that was built on or before 1986 when Section 1417 of the Safe Drinking Water Act was enacted"; "Criterion 5: Having lived in a domicile in Flint with confirmed documentation of lead in tap water subsequent to May 1, 2014 through January 5, 2016, or thereafter"; and "Criterion 6: Having attended a school or daycare supplied by Flint water that was known to have lead in the water." Hu Decl. ¶ 21, ECF No. 1208-90, PageID.35892-35893.

levels. Hu Decl. ¶ 9, ECF No. 1208-90, PageID.35882-35884. Dr. Hu relied on Dr. Weisel's opinion as support for his own opinion that all members of the minor subclass were injured from exposure to lead over 90 days. *Id.* ¶ 21, PageID.35891-35895. Plaintiffs, in turn, relied on Dr. Hu to try to provide common evidence of the minor subclass members' injuries. Class Cert. Mot. 30, PageID.34467.

The Court denied Plaintiffs' motion to certify a minors subclass. Second Am. Op. & Order Granting in Part and Denying in Part Pls.' Mot. to Certify Class 55-78 (Class Cert. Order), ECF No. 1957, PageID.68063-68086. The Court certified an issues class including "[a]ll persons and entities who, for any period of time between February 10, 2015 and October 16, 2015, were exposed to or purchased drinking water supplied by the City of Flint." *Id.* at 119-20, PageID.68127-68128. The term "persons" was defined to include "individuals who have reached the age of majority as of the date of the class notice." *Id.* at 120, PageID.68128. One of the certified issues is: "Were the contaminated water conditions capable of causing harm to Flint residents, properties, and businesses?" Corrected Order Regarding Certified Class Issues 5 (Order Regarding Class Issues), ECF No. 2250, PageID.73963.

In anticipation of trial, Dr. Weisel prepared a new report offering opinions to support Plaintiffs' contention that "corrosive water conditions . . . were capable of causing harm to Flint residents." Ex. 2, Weisel Decl. 1 (Decl.); *see also* Ex. 3, Weisel Rebuttal Decl. 1 & n.2 (Rebuttal Decl.). Dr. Weisel's new report is

substantially the same as his class-certification report except that, throughout, he has replaced references to Flint children with references to adults who are members of the issues class. Thus, Dr. Weisel's report now states:

My opinion is that persons who are currently adults and consumed unfiltered tap water over a period of at least 90 days in Flint at homes, recreational facilities, workplaces, restaurants, and schools between April 25, 2014 and October 16, 2015 ingested increased concentrations of lead as a result of Flint's change in water to the Flint River.

Decl. 9. Similar to his class-certification report, Dr. Weisel's new report also gives the following opinions about the release of lead into the water:

[T]he failure to use appropriate corrosion control treatment when or shortly after the water source for Flint was switched on April 25, 2014 caused a disruption of the protective layer on the surface of pipes and plumbing fittings and fixtures resulting in soluble and particulate lead into the tap water in homes, recreational facilities, workplaces, restaurants, and schools. . . .

[H]omes, recreational facilities, workplaces, restaurants, and schools that had lead service lines, galvanized steel service lines with connectors containing lead, or interior plumbing that had lead solder or other lead containing fittings and fixtures (*i.e.*, structures built prior to 1986 that did not have complete plumbing upgrades) had increased lead in their tap water because of the corrosivity of the water resulting from the change of water source on April 25, 2014. . . .

[W]ater lead levels were elevated in Flint between May 1, 2014, and October 16, 2015 in homes, recreational facilities, workplaces, restaurants, and schools if they had service lines or interior plumbing whose properties make them a likely source of lead . . . even if a single or small number of water samples collected in those buildings measured below the lead minimum reporting limit since water lead levels vary with time and depend on the sampling conditions used. . . .

Decl. 10.

VNA moved to exclude Dr. Weisel’s opinions at the class-certification stage. VNA Mot. to Exclude Weisel, ECF No. 1381, PageID.51239. The Court denied the motion as moot because it did not rely on his opinions in ruling on class certification, and said that VNA could “revive [its] *Daubert* motion[] should Class Plaintiffs seek to rely on [his testimony] at a later time.” Class Cert. Order 143, PageID.68151.

### **LEGAL STANDARD**

Courts have the “basic gatekeeping obligation” to ensure the “reliability and relevancy of expert testimony.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147, 152 (1999); *see Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993).

To give opinion testimony, an expert must be qualified through “knowledge, skill, experience, training, or education.” Fed. R. Evid. 702. Moreover, a nexus must exist between the expert’s qualifications and the opinion offered: “The issue with regard to expert testimony is not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.” *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994).

The expert opinion also must be “based on sufficient facts or data,” must be “the product of reliable principles and methods,” and must be the result of the expert “reliably appl[ying] the principles and methods to the facts of the case.” Fed. R. Evid. 702(b)-(d). The Supreme Court has identified four non-exclusive factors for courts to consider when deciding whether an expert’s methodology “rests on a

reliable foundation”: (1) “whether a theory or technique can be or has been tested”; (2) “whether it has been subjected to peer review and publication”; (3) “whether a technique has a known or potential rate of error and the existence of standards controlling its operation”; and (4) “whether the theory or technique enjoys general acceptance in a relevant scientific community.” *Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244, 251 n.5 (6th Cir. 2001) (citing *Daubert*, 509 U.S. at 593-94).

Under Federal Rule of Evidence 403, a court also “‘may exclude relevant evidence if its probative value is substantially outweighed by . . . unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.’” *HLV, LLC v. Van Buren County*, 775 F. App’x 204, 216 (6th Cir. 2019) (quoting Fed. R. Evid. 403); *see, e.g., Jimkoski v. State Farm Mut. Auto. Ins.*, 247 F. App’x 654, 662 (6th Cir. 2007) (noting that evidence was more prejudicial than probative in light of limitation on issues being tried).

As the proponent of the expert testimony, Plaintiffs must establish its admissibility by a preponderance of the evidence. *Nelson*, 243 F.3d at 251.

## **ARGUMENT**

### **I. Dr. Weisel Is Not Qualified To Offer His Opinions About The Release Of Lead Into Drinking Water During The Water Crisis**

Dr. Weisel opines that corrosive Flint River water “alter[ed] the equilibrium necessary to maintain the passivation layer and the scale material” that previously prevented lead pipes, lead solder, and lead fittings in the water distribution system

from releasing lead. Decl. 15. He says that the “failure to use appropriate corrosion control treatment” when Flint switched water sources in April 2014 “caused a disruption of the protective layer on the surface of pipes and plumbing fittings and fixtures” in homes and other buildings in Flint. *Id.* at 14. He concludes that class members were exposed to increased lead as a result of the water crisis. *Id.* at 12-14.

These opinions are outside Dr. Weisel’s expertise. Dr. Weisel has a Ph.D. in chemical oceanography. Decl. Ex. 1, p. 1. He is a professor emeritus of public health at Rutgers University. *Id.* His research focuses on exposure to chemical agents. Ex. 4, Weisel 2020 Dep. (2020 Dep.) 43:15-20. According to his faculty profile, his “research highlights” are “[e]valuation of ozone by-products,” “[e]xposure and dose from pesticide treatment of aircraft cabins,” “[e]valuation of exposure to disinfectant by-products in drinking water,” and “[m]easurement of the lung microbiome.” Ex. 5, Faculty Profile. He has co-authored a few articles on exposure to lead in dust and soil. 2020 Dep. 209:14-216:7. But Dr. Weisel’s claimed expertise in evaluating the effects of toxic exposures on people does not qualify him to opine on how lead ended up in Flint water or on where and when that occurred.

In his declaration and deposition testimony, Dr. Weisel identifies no training, research, or experience relating to what causes the release of lead into water distribution systems. He admits that he is not an expert on pipe scale (the supposed source of the lead released into Flint’s tap water). 2020 Dep. 44:17-20. Nor is Dr.

Weisel an expert on how corrosion occurs in pipes. *Id.* at 43:22-44:2. And he claims no expertise in water treatment plants or in the use of corrosion controls in water treatment. *Id.* at 41:19-42:10; 42:17-19; 58:2-6; 64:5-8; 87:3-4.

While Dr. Weisel says that the failure to use corrosion control caused lead to be released into tap water, he cannot say what an appropriate corrosion-control treatment would be. 2020 Dep. 135:12-18. Instead, he explains that his “reading of the literature” shows that “there are inappropriate ones” and “appropriate ones.” *Id.* at 135:23-136:2. “A course of self-study,” however, “is not adequate . . . to create an expert.” *Taylor v. Watters*, 655 F. Supp. 801, 805 (E.D. Mich. 1987); *see Zellers v. NexTech Ne., LLC*, 533 F. App’x 192, 197 (4th Cir. 2013) (proposed expert seeking to testify that plaintiff’s medical symptoms were caused by exposure to toxic gas was not qualified because she was a neurologist with no training in toxicology and her knowledge of gas toxicity came simply from articles on the internet).

Dr. Weisel bases his opinion that certain homes in Flint had elevated water lead levels on “fundamental scientific principles that govern how lead enters into the drinking water within a water distribution system.” Decl. 12. He said that he based his opinion on his “knowledge of chemistry, that if there is water that’s corrosive, low pH that passes through plumbing, it will release lead.” 2020 Dep. 64:14-17. He was “not looking at, in detail, how corrosion occurs within the pipe, but rather what it releases to people and what are the causes of those exposures.” *Id.* at 43:17-20.

A general background in chemistry does not qualify Dr. Weisel to provide expert testimony on these highly technical issues. For example, Judge Drain concluded that an expert's "expertise in the broad field of chemical engineering does not qualify him to opine and offer testimony in all areas of the chemical engineering field." *Everlight Elecs. Co. v. Nichia Corp.*, No. 12-cv-11758, 2014 WL 4707053, at \*9 (E.D. Mich. Sept. 22, 2014). He explained that, "[u]nless [the witness] is to testify only to general engineering principles that any mechanical engineer would know, the engineer must possess 'some special skill, knowledge or experience,' concerning the particular issue before the court." *Id.* (quoting *Shreve v. Sears, Roebuck & Co.*, 166 F. Supp. 2d 378, 392 (D. Md. 2001)); see *In re Whirlpool Corp. Front-Loading Washer Prod. Liab. Litig.*, 45 F. Supp. 3d 724, 738 (N.D. Ohio 2014) (holding that an expert's "general experience in experimental design is insufficiently specific to permit [him] to offer . . . conclusions" on whether a washing machine's design causes "malodors associated with mold and mildew"). Here, Dr. Weisel's opinions are even further afield from his training and experience. His expertise concerns *the effects of environmental toxins* on the body, while his opinions here are about *how toxins were released* into the Flint water system in the first place.

Dr. Weisel also says that his opinions rely on the testimony of other witnesses—namely Dr. Russell and EPA employee Michael Schock. Decl. 15. But an expert may not simply regurgitate another expert's opinion when he is not



qualified to give that opinion himself. *See Dura Auto. Sys. of Ind. v. CTS Corp.*, 285 F.3d 609, 614 (7th Cir. 2002) (“A scientist, however well credentialed he may be, is not permitted to be the mouthpiece of a scientist in a different specialty.”); *In re Welding Fume Prods. Liab. Litig.*, No. 03-cv-17000, 2010 WL 7699456, at \*63 (N.D. Ohio June 4, 2020) (excluding medical doctor’s diagnosis because it was based exclusively on the opinions of other doctors). The Sixth Circuit has “squarely rejected any argument that Rule 703 extends so far as to allow an expert to testify about the conclusions of other experts.” *Mike’s Train House, Inc. v. Lionel, L.L.C.*, 472 F.3d 398, 409 (6th Cir. 2006), *overruled on other grounds by A.K. ex rel. Kocher v. Durham Sch. Servs., L.P.*, 969 F.3d 625 (6th Cir. 2020). Other Circuits agree.<sup>2</sup>

Because Dr. Weisel’s opinions are beyond the scope of his “knowledge, skill, experience, training, or education,” they are inadmissible under Rule 702.

## **II. Dr. Weisel’s Opinion That Flint Homes Had Lead Plumbing And Elevated Water Lead Levels During The Relevant Period Is Unreliable**

Dr. Weisel’s opinion that class members ingested increased concentrations of lead during the water crisis is based on two further opinions: (1) homes built before 1986 had lead in their service lines or interior plumbing that leached into tap water;

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<sup>2</sup> *See, e.g., United States v. Tran Trong Cuong, M.D.*, 18 F.3d 1132, 1143 (4th Cir. 1994) (expert witness could not bolster his opinion testimony by testifying that a non-testifying expert’s conclusions were essentially the same); *United States v. Grey Bear*, 883 F.2d 1382, 1392-93 (8th Cir. 1989) (“We are persuaded that Fed. R. Evid. 703 does not permit an expert witness to circumvent the rules of hearsay by testifying that other experts, not present in the courtroom, corroborate his views.”).

and (2) all buildings with lead in their service lines or internal plumbing would have had elevated lead levels in their tap water from May 2014 to January 2016. Decl. 17, 20. Those opinions are unreliable, and the Court should exclude them.

**A. Dr. Weisel’s Opinion That All Homes Built Before 1986 Contained Lead Service Lines Or Plumbing Components Is Unreliable**

Dr. Weisel’s report asserts that all homes built before 1986 that have not had their plumbing replaced—which according to him is 99% of homes in Flint, *see* Decl. 18—had lead in their service lines and interior plumbing and thus had elevated water lead levels during the relevant period, *see id.* at 17.<sup>3</sup> Dr. Weisel lacks sufficient facts and data to support that opinion, so it should be excluded.

Dr. Weisel bases his opinion that homes built before 1986 had lead in their plumbing on statutory changes that occurred that year. He notes that, in 1986, Congress amended the Safe Drinking Water Act to prohibit the use of pipes, fixtures, fittings, solder, or flux that are not “lead free” in public water systems and in plumbing that is used to provide water for human consumption. Decl. 18; *see* 42 U.S.C. § 300g-6(a)(1)(A).<sup>4</sup> He observes that, in 1986, Congress reduced the legal “lead-free” level and that Congress further reduced this level in 2011. Decl. 18; *see*

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<sup>3</sup> The qualification—that only those pre-1986 homes *that have not had their plumbing replaced* had elevated lead levels—was necessary because class representative Rhoda Kelso replaced her plumbing in 2000. *See* Kelso Dep. 216:5-24, ECF No. 1384-5, PageID.52595.

<sup>4</sup> Solder is a fusible metal alloy used to join together metal work pieces.

28 U.S.C. § 300g-6(d). Based on those changes, Dr. Weisel assumes, without any investigation, that all homes built before 1986 had plumbing that contained lead. *See* 2020 Dep 219:18-220:2. But the fact that plumbing containing lead was not prohibited before 1986 does not mean that it was used in every house.

Dr. Weisel cites no empirical evidence to support his assumption. He did not conduct any testing or inspect any pipes in the water distribution system or in homes in Flint. 2020 Dep. 95:18-96:1. And he points to no studies or record evidence to support the supposition that all homes in Flint built before 1986 would have lead-containing fixtures and fittings.<sup>5</sup> Instead, Dr. Weisel has “unjustifiably extrapolated from an accepted premise”—that most structures in Flint were built before 1986—“to an unfounded conclusion”—that all homes and buildings built before 1986 must contain high-lead brass and solder. Fed. R. Evid. 702, advisory committee notes (2000 amend.) (citing *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)).

Dr. Weisel’s “improper extrapolation” and “lack of testing” are “[r]ed flags that caution against certifying an expert.” *Newell Rubbermaid, Inc. v. Raymond*

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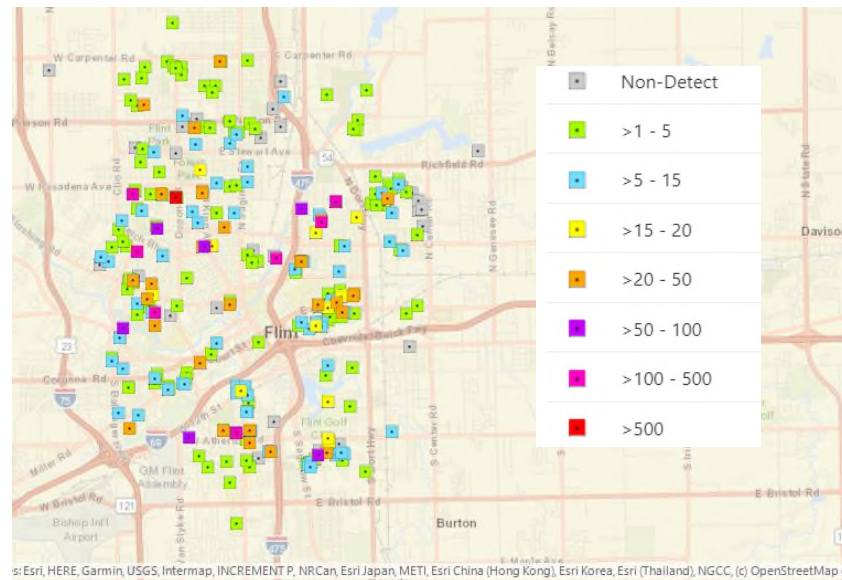
<sup>5</sup> *See, e.g., Boss v. Nissan N. Am., Inc.*, 228 F. App’x 331, 337-38 (4th Cir. 2007) (affirming the exclusion of four experts’ opinions as speculative because they had “no physical evidence” to confirm their theory); *Rodgers v. Beechcraft Corp.*, No. 15-cv-129, 2016 WL 7911334, at \*7 (N.D. Okla. Nov. 29, 2016) (excluding opinion of expert who “obtained no physical evidence to support his hypothesis” and concluding that in such a case “we are left with an expert’s *ipse dixit* guesswork,” which is “insufficient as a matter of law”), R. & R. adopted by 2017 WL 465474.

*Corp.*, 676 F.3d 521, 527 (6th Cir. 2012). If there is “too great an analytical gap between the data and the opinion proffered,” Rule 702 bars the expert’s testimony. *Joiner*, 522 U.S. at 146. That is true here. Dr. Weisel’s opinion should be excluded.

**B. Dr. Weisel’s Opinion That All Buildings With Lead-Containing Plumbing Had Elevated Water Lead Levels Is Unreliable**

Dr. Weisel makes a further impermissible inferential leap in offering the opinion that “homes, recreational facilities, workplaces, restaurants, and schools that had . . . interior plumbing that had lead solder or other lead containing fittings and fixtures . . . would have increased lead in their tap water because of the corrosivity of the water resulting from the change of water source.” Decl. 17.

Dr. Weisel did not test the water at a representative sample of homes and buildings to check the accuracy of his opinion or account for contradictory data showing that many available samples tested negative for lead. *See, e.g.*, 2020 Dep. 95:21-96:1. The map below, reproduced from a report by VNA’s expert Dr. Brent Finley, shows sampling from Virginia Tech’s 2015 Flint Water Study. *See* Ex. 6, Finley Report 12. As the map shows, not every home in Flint experienced elevated water lead levels. Homes throughout the City—represented by the gray boxes—had no detectable level of lead in the water; and many more—represented by the green boxes—had very low lead levels (between 1 and 5 ppb).



*Figure 12. 2015 sampling results from the Flint Water Study.*

Dr. Finley has identified 166 samples from pre-1986 homes that had lead levels below the 1 ppb detection level. Finley Class Cert. Report 40, ECF No. 1370-18, PageID.46473. Dr. Finley also has estimated that over half of 4,051 water samples taken in Flint in January 2016 were non-detect for lead. Ex. 6, Finley Report 12.

Moreover, the Flint Fast Action and Sustainability (FAST Start) program data show that only a minority of homes in Flint had lead service lines. *See* Ex. 7, Gagnon Suppl. Report 2-3.<sup>6</sup> The data show that only 36% of addresses in the FAST Start program had lead service lines, *id.* at 2, meaning that 64% of addresses did not. So there is every reason to think that a substantial majority of homes in Flint did not

<sup>6</sup> FAST Start was tasked with removing lead services lines in Flint. Gagnon Decl. 3, ECF No. 1370-17, PageID.46379. FAST Start conducted statistical modelling to identify areas of the City that were likely to have lead or galvanized steel service lines, inspected service lines in those areas, and excavated and replaced lead and galvanized steel service lines when found. *Id.* at 3-4, PageID.46379-46380.

experience elevated water lead levels. Dr. Finley’s review of the data revealed that the majority of samples collected from homes with copper rather than lead service lines in August 2015 had non-detectable water lead levels. Ex. 6, Finley Report 9.

Dr. Weisel ignored all of this data, which undermine his core assumption. *See, e.g.,* Ex. 8, Weisel 2022 Dep. 166:23-168:8, 169:23-170:4 (2022 Dep.). The purported justification he offers is a non sequitur: that “water lead levels vary with time and depend upon the sampling conditions.” Decl. 21. Under that rationale, no number of tests showing undetectable lead levels would ever cause Dr. Weisel to question his hypothesis. Dr. Weisel has no scientific reason to ignore that relevant data. “Whether the expert has adequately accounted for obvious alternative explanations”—here, the possibility that buildings tested negative for lead because they actually had no lead in their tap water—is an important factor in evaluating the reliability of an expert’s opinion. Fed. R. Evid. 702 advisory committee’s notes to 2000 amendment. By not accounting for negative lead tests, Dr. Weisel failed to “employ[] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire*, 526 U.S. at 152.

Dr. Weisel invokes two studies to support his conclusion. Decl. 25-26 (citing Ex. 9, Lytle *et al.*, *Sequential Drinking Water Sampling as a Tool for Evaluating Lead in Flint, Michigan* (2019) (Lytle), and Ex. 10, Mantha *et al.*, *Tracking Reduction of Water Lead Levels in Two Homes During the Flint Federal Emergency*

(2020) (Mantha)). Neither justifies ignoring the data showing that many homes in Flint did not have elevated water lead levels. Those studies identify only a minuscule number of elevated samples (five and two, respectively) that *may* have resulted from lead in brass fixtures. *See* Lytle 43-48; Mantha 5.<sup>7</sup> It is not reliable to extrapolate from those few results to conclude that lead was released at *all* Flint homes and buildings containing varying amounts of lead. *See, e.g., Avila v. Willits Env'tl. Remediation Tr.*, 633 F.3d 828, 839-40 (9th Cir. 2011) (expert opinion based on extrapolating from limited samples was unreliable); *Barnette v. Grizzly Processing, LLC*, Civil No. 10-77, 2012 WL 293305, at \*4 (E.D. Ky. Jan. 31, 2012) (same).

Dr. Weisel also indicates that it is a matter of “general scientific principles of water chemistry,” Decl. 12, that all buildings with older interior plumbing would have had elevated lead levels—even if those buildings tested negative for water lead. But “opinion evidence that is connected to existing data only by the *ipse dixit* of the expert” is inadmissible. *Joiner*, 522 U.S. at 146. That is all that Dr. Weisel’s opinion is. His opinion that all structures that had any lead in their plumbing would have experienced elevated water lead levels is unreliable because it is based on unverified

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<sup>7</sup> Both studies also have limitations. The Lytle study clarifies that the composition of the City-owned portion of the service lines was unknown (meaning that any lead may have come from City-owned lead service lines). *See* Lytle 43. The Mantha study identified elevated lead levels that may be attributable to brass but only after employing high-velocity flushing that is not like normal use. *See* Mantha 5-6.



assumptions, and it should be excluded. *See Mohney v. USA Hockey, Inc.*, 138 F. App'x 804, 809 (6th Cir. 2005) (affirming exclusion of testimony of expert who used “estimates and assumptions” rather than “the actual data”); *Kalamazoo River Study Grp. v. Rockwell Int'l Corp.*, 171 F.3d 1065, 1072 (6th Cir. 1999) (affirming exclusion of testimony of expert whose “conclusion was based on speculation, conjecture, and possibility” rather than a “factual basis”) (internal quotation marks omitted); *Valentine v. Jones Lang Lasalle Ams., Inc.*, No. 13-cv-10888, 2014 WL 4906726, at \*4 (E.D. Mich. Sept. 30, 2014) (Levy, J.) (an opinion that “is simply a hypothesis presented in the guise of knowledge” is inadmissible under Rule 702).

### **III. Dr. Weisel's Opinions About Class Members' Exposure To Increased Lead Levels Are More Prejudicial Than Probative**

The only issue certified for trial that Dr. Weisel seeks to address is: “Were the contaminated water conditions capable of causing harm to Flint residents”? Order Regarding Class Issues 5, PageID.73963; *see* Decl. 1.<sup>8</sup> But Dr. Weisel does not opine that Flint water was capable of causing any of the thirteen specific harms claimed by Plaintiffs. *See* Class Plaintiffs' Notice Regarding Certified Issue No. 3, ECF No. 2283, PageID.74157-74158. His opinion is simply that “persons who are currently adults and consumed unfiltered tap water over a period of at least 90 days

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<sup>8</sup> Under the Court's class-certification orders, issues of specific causation, injury, and damages must be proven in individual trials on a plaintiff-by-plaintiff basis. *See* Class Cert. Order 100-18, PageID.68108-68126.



in Flint at homes, recreational facilities, workplaces, restaurants, and schools between April 25, 2014 and October 16, 2015 ingested increased concentrations of lead as a result of Flint’s change in water to the Flint River.” Decl. 9.

The Court should exclude Dr. Weisel’s opinion that class members were exposed to increased lead levels from drinking Flint water because his opinion is substantially more prejudicial than probative. Dr. Weisel admits that he has not attempted to quantify Flint residents’ exposure to the allegedly “elevated,” “increased” water lead levels. *See* 2022 Dep. 60:16-62:1 (“elevated” means “the lead levels in the water would be higher . . . than they were prior to the switchover,” and does not refer to a specific, quantified lead level); *id.* at 70:17-71:13 (lead levels “increased” from April 2014 to October 2015 “compared to what [they] would have been” if Flint had not changed water sources). He therefore cannot offer the opinion that any Flint resident was exposed to a *harmful* lead level. *See* Rebuttal Decl. 30. But proof that Flint residents were exposed to a harmful level of lead is necessary to establish that the water was “capable of causing” any harm. *Powell-Murphy v. Revitalizing Auto Cmtys. Envtl. Response Tr.*, 333 Mich. App. 234, 249-250 (2020) (“General causation pertains to whether a toxin is capable of causing the harm alleged. A necessary predicate of this inquiry is identifying the asserted exposure *level* of the toxin. . . . [C]ausation requires . . . proof of *enough* exposure to cause the plaintiff’s specific illness.” (emphases added; internal quotation marks omitted)).

Any relevance that Dr. Weisel's opinion bears to the certified issues is minimal because the opinion would not materially assist the jury in deciding whether the allegedly contaminated water was capable of causing the claimed health effects.

Moreover, the minimal relevance of Dr. Weisel's opinion is outweighed by the dangers of unfair prejudice, confusing the jury, and wasting time. Dr. Weisel's testimony is prejudicial and confusing because the jury may improperly infer from it that class members were exposed to harmful lead levels even though Dr. Weisel does not offer that opinion. Further, VNA would have to devote trial time to rebutting any improper implication that Dr. Weisel had found harmful levels of lead in Flint drinking water. *See In re Agent Orange Prod. Liab. Litig.*, 611 F. Supp. 1223, 1256 (E.D.N.Y. 1985), *aff'd*, 818 F.2d 187 (2d Cir. 1987) ("The waste-of-time ground for exclusion is particularly persuasive when detailed rebuttal testimony would be necessary to establish that the proffered evidence lacks probative worth."); *accord Soldo v. Sandoz Pharms. Corp.*, 244 F. Supp. 2d 434, 536 (W.D. Pa. 2003). VNA also would have to devote time—both during cross-examination of Dr. Weisel and during the testimony of VNA's experts—to challenging the reliability of Dr. Weisel's analysis and his qualifications for performing it. *See supra*, Secs. I & II.

Because Dr. Weisel's opinion that class members were exposed to elevated lead levels is more prejudicial than probative, it should be excluded under Rule 403.

## CONCLUSION

The Court should exclude the opinions and related testimony of Dr. Weisel.

Respectfully submitted,

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Dated: May 19, 2023

**CERTIFICATE OF SERVICE**

I hereby certify that on May 19, 2023, I electronically filed the foregoing document with the Clerk of the Court using the ECF System, which will send notification to the ECF counsel of record.

Respectfully submitted,

/s/ James M. Campbell

Dated: May 19, 2023